

From: [Melinda McCoy](#)
To: [Jhana Enders](#)
Cc: [Dawn Ison](#); [Phillip Crocker](#); [Mike Schaub](#); [Kenneth Shewmake](#)
Subject: Re: Bachman Services Fire - Oklahoma City, OK [Request for Water Quality Reference Numbers]
Date: 08/14/2012 12:52 PM
Attachments: [Bachman Fire Emergency Response_WQ Criteria and Benchmarks for Consideration.xlsx](#)

Hi Jhana,

I put together the spreadsheet attached below, which basically just provides a comparison between the "hits" in the water lab results from your site and several water quality criteria or benchmarks, including: (1) aquatic life and human health criteria from Oklahoma's water quality standards, (2) EPA's national Clean Water Act section 304(a) water quality criteria recommendations for aquatic life and human health, and (3) aquatic life and human health water quality benchmarks used by EPA during the BP Oil Spill response.



Bachman Fire Emergency Response_WQ Criteria and Benchmarks for Consideration.xlsx

Notes regarding OK/EPA 304(a) Human Health Criteria in Spreadsheet Below

- For the OK human health criteria and EPA 304(a) human health criteria recommendations, please note that the "water + fish" criteria are intended to protect human health based on consumption of water and fish in a waterbody over a lifetime exposure (70 years). The "fish only" criteria are intended to protect human health based on consumption of fish only over a life exposure (70 years).
- Also note that OK's human health criteria are based on a 10-5 risk level, whereas EPA's 304(a) human health criteria recommendations are based on a more stringent 10-6 risk level. Also, note that OK's human health criteria are based on a 6.5 grams per day rate of fish consumption, whereas most of EPA's 304(a) human health criteria recommendations are based on 17.5 grams per day rate of fish consumption (more stringent).

Note regarding OK/EPA 304(a) Aquatic Life Criteria in Spreadsheet Below

- Note that differences between Oklahoma's aquatic life criteria and EPA's 304(a) aquatic life criteria recommendations are likely based on the fact that Oklahoma recalculated EPA's recommendations based on data regarding species found in Oklahoma.

Note regarding BP Oil Spill Benchmarks

- The sources for the BP Oil Spill benchmark values vary. Please refer to the BP websites noted to see how these benchmarks were developed and how they were intended for use. Also, I'm not sure if the benchmarks are specific to saltwater, or if salt vs. fresh was a consideration when these benchmarks were selected.

Regarding sediment quality criteria/benchmarks: this is an area that I'm much less familiar with. The following EPA website on sediment quality guidelines might provide useful information/other contacts:

<http://water.epa.gov/polwaste/sediments/cs/guidelines.cfm>. Also, NOAA's Screening Quick Reference Tables (SQuiRTs) present screening concentrations for inorganic and organic contaminants in various environmental media, including freshwater sediment. The SQiRTs can be found on the following website:



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<http://response.restoration.noaa.gov/sites/default/files/SQuiRTs.pdf>

Please let me know if there's more that I can do to help, though I feel this is as much information as I'm able to provide (you'd likely need to engage others to get additional info.). Also, please let me know if you have any questions about what I've provided here.

Thanks!!
Melinda

Melinda McCoy
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▼ Jhana Enders---08/14/2012 11:22:19 AM---Thanks Melinda, I will take a look at information below and forwarding to Ken Shewmake [Eco Risk Ass

From: Jhana Enders/R6/USEPA/US
To: Melinda McCoy/R6/USEPA/US@EPA
Cc: Dawn Ison/R6/USEPA/US@EPA, Mike Schaub/R6/USEPA/US@EPA, Philip Crocker/R6/USEPA/US@EPA, Kenneth Shewmake/R6/USEPA/US@EPA
Date: 08/14/2012 11:22 AM
Subject: Bachman Services Fire - Oklahoma City, OK [Request for Water Quality Reference Numbers]

Thanks Melinda,

I will take a look at information below and forwarding to Ken Shewmake [Eco Risk Assessor] who also agreed to take a look at the data. Would just like to ensure we are all on the same page for any recommendation EPA makes to ODEQ/City. Thanks.

Jhana Enders, Federal On-Scene Coordinator (FOSC)
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"Nothing in life is to be feared. It is only to be understood." (Marie Curie)

▼ Melinda McCoy---08/14/2012 10:43:58 AM---Hi Jhana, I'm copying my supervisor (Phil Crocker) and a co-worker of mine (Mike Schaub) who works

From: Melinda McCoy/R6/USEPA/US
To: Jhana Enders/R6/USEPA/US@EPA

Cc: Dawn Ison/R6/USEPA/US@EPA, Mike Schaub/R6/USEPA/US@EPA, Philip Crocker/R6/USEPA/US@EPA
Date: 08/14/2012 10:43 AM
Subject: Re: Fw: Bachman Services Fire - Oklahoma City, OK [Request for Water Quality Reference Numbers]

Hi Jhana,

I'm copying my supervisor (Phil Crocker) and a co-worker of mine (Mike Schaub) who works in our water quality monitoring and assessment program so that I can fold them into the loop.

In follow-up to our conversation a few minutes ago, I wanted to send you a few website links to give you a sense of the available water quality criteria recommendations/benchmarks that I'm aware of. I'm currently building a simple Excel file which will compare the "hits" in the water analytical results from your site to the available values as identified in the website links below. Will send it as soon as I'm finished, and we can go from there to find out what more info. is needed.

Please note that the info. below is not for sediment quality. I wanted to tackle your water quality benchmark questions first since I'm more familiar with water quality than sediment quality.

Oklahoma State Water Quality Standards

(see Appendix G, Table 1 which starts on page 121 of the .pdf file)
http://www.owrb.ok.gov/util/rules/pdf_rul/RulesCurrent2011/Ch45-Current2011.pdf

EPA Clean Water Act §304(a) Water Quality Criteria Recommendations

(includes aquatic life and human health water quality criteria recommendations)
<http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm>

BP Oil Spill - water quality benchmarks for aquatic life

(note that website contains Q's and A's about these benchmarks)
<http://www.epa.gov/bpspill/water-benchmarks.html>

BP Oil Spill - water quality benchmarks for human health

(note that website contains Q's and A's about these benchmarks)
<http://www.epa.gov/bpspill/health-benchmarks.html>

Thanks!!
Melinda

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▼ Dawn Ison---08/13/2012 03:31:40 PM---Hey Melinda, Please see email from Jhana below. Feel free to contact her with

From: Dawn Ison/R6/USEPA/US
To: MCCOY.MELINDA@epa.gov, enders.jhana@epa.gov
Date: 08/13/2012 03:31 PM
Subject: Fw: Bachman Services Fire - Oklahoma City, OK [Request for Water Quality Reference Numbers]

Hey Melinda,

Please see email from Jhana below. Feel free to contact her with questions, and Jhana feel free to clarify anything via email to Melinda. Melinda is leaving for the day but will be in tomorrow.

Jhana, Melinda does the Water Quality Standards for OK so I am thinking she is your best resource if you are looking for options for reference numbers (State list versus EPA list).

Thanks!

Dawn Ison
Environmental Scientist

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Be kind to the environment.
Please don't print this email unless necessary.

----- Forwarded by Dawn Ison/R6/USEPA/US on 08/13/2012 03:29 PM -----

From: Jhana Enders/R6/USEPA/US
To: Dawn Ison/R6/USEPA/US@EPA
Date: 08/13/2012 02:18 PM
Subject: Bachman Services Fire - Oklahoma City, OK [Request for Water Quality Reference Numbers]

Dawn,

I responded to a warehouse chemical fire [they make products for the oil and gas industry] in OK City on July 24, 2012. It is on OSC.net if you need more information.

The biggest issue from the fire was 3M gallons of runoff water into a canal which lead to the Oklahoma River - very popular for recreational and no DW intakes according to city and state.

The analytical data for the worst portion of the canal affected is attached. Ruhl and I initially ran the analytical by Mike Overbay and Guy Tidmore as the company originally intended to sell it for fracking however, don't think they have found any buyers. If they do, then OCC would pick up the tracking not us...They tried to treat it and run it though the city waste water but it

failed. I really believe it failed as the cleanup contractor they had was in over their head and they might meet the criteria with another contractor. In the meantime, the company let the cleanup contractor go - not sure why?

I have been trying to get ODEQ to give me a cleanup number they would like to meet but apparently, they have none. So, looking to EPA water quality folks to suggest some cleanup numbers or review the data to see what recommendations they would make. Overbay and Tidmore did not seem overly concerned about the analytical and with the large amount of water think the chemicals were diluted...however, just need some water quality numbers to base a decision on...any help or person to approach for guidance appreciated...

I have a meeting with the city, ODEQ and the RP on Wed at 2:00 so would like to have something by then if possible. Thanks.

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[attachment "07.27.12.pdf" deleted by Melinda McCoy/R6/USEPA/US] [attachment "07.27.12-B.pdf" deleted by Melinda McCoy/R6/USEPA/US] [attachment "07.27.12-C.pdf" deleted by Melinda McCoy/R6/USEPA/US]